

California Regional Water Quality Control Board
Santa Ana Region

Order No. 01-88

Amending Order No. 99-21, NPDES No. CA8000394

Waste Discharge Requirements
for
Metropolitan Water District of Southern California
Inland Feeder Project, Riverside and San Bernardino County

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter Board), finds that:

1. On April 9, 1999, the Board adopted Order No. 99-21, NPDES No. CA8000394, prescribing waste discharge requirements for Metropolitan Water District of Southern California (hereinafter discharger or MWD) for the discharge of wastewater associated with the construction of the Inland Feeder Project.
2. The discharger is constructing a 43.5-mile system of tunnels and pipelines known as the Inland Feeder Project. The Inland Feeder Project will extend from the State Water Project facilities in the San Bernardino Mountains to the Eastside Reservoir Project at the Colorado River Aqueduct in San Jacinto. Order No. 99-21 regulates wastewater discharges associated with tunnel boring activities (groundwater from dewatering operations and tunnel boring machine-cooling water) at various locations within San Bernardino and Riverside Counties.
3. On January 19, 2001, Order No. 01-14 was adopted amending Order No. 99-21 to increase the amount of discharge flows at Discharge Serial No. 004 and 005, Riverside Badlands Tunnel, from 0.6 million gallons per day (MGD) to 1.6 MGD and 2.82 MGD, respectively.
4. The discharger recently submitted a request to increase the amount of discharge flows at Discharge Serial No. 003 and 004, Riverside Badlands Tunnel, from 0.35 million gallons per day (MGD) and 1.6 MGD, respectively, to 2.59 MGD and 2.5 MGD, respectively. The discharger is also requesting the addition of a new Discharge Serial No. 006, Riverside-Badlands Tunnel (Opal Avenue Portal Facility) and proposes to discharge 0.864 MGD from this new location. The increase in discharge flows is necessary to accommodate the volume of groundwater expected to be encountered during tunneling operations.
5. The discharger has requested that until tunnel boring operations are completed at Arrowhead West and East Tunnels, discharges to Discharge Serial No. 001 (flow rate 1.0 MGD) be combined with discharges from Discharge Serial No. 002 (flow rate 3.0 MGD), respectively, to allow a combined flow rate of 4.0 MGD, tributary to the East Twin Creek.

6. On July 7, 1999, the Executive Officer issued Cleanup and Abatement Order (CAO) No. 99-61 requiring the discharger to abate discharges of waste that exceeded the pH limitation of Order No. 99-21, and to submit a plan, including a time schedule, to offset discharges of total dissolved solids (TDS) in excess of Bunker Hill II Groundwater Subbasin water quality objectives.
7. On December 21, 2000, the Executive Officer accepted the discharger's proposed offset program, which entails extraction of high TDS groundwater from the Bunker Hill II Groundwater Subbasin, and export of this water from the subbasin (and the Santa Ana Region) via the Santa Ana Regional Interceptor (SARI line). MWD is also obligated to supply or purchase an equivalent amount of high quality product water for replacement (basin recharge) to maintain water quality and protect beneficial uses.
8. It is necessary to amend Order No. 99-21, as amended by Order No. 01-14, to reflect the increase in wastewater discharge flows from Discharge Serial No. 003, 004, to add a new Discharge Serial (No. 006), and to include the TDS offset program.
9. In accordance with Water Code Section 13389, the amendment of Order No. 99-21, NPDES No. CA8000394, is exempt from those provisions of the California Environmental Quality Act contained in Chapter 3 (commencing with Section 21100), Division 13 of the Public Resources Code.
10. The Regional Board has notified the discharger and other interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity to submit their written views and recommendations.
11. The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that Order No. 99-21, as amended by Order No. 01-14, shall be amended as follows:

1. Finding 3 is revised to read as follows:

3. The following table lists the discharge points and affected receiving waters:

Discharge Serial No.	Discharge Location	Latitude	Longitude	Affected Receiving Water	Flow Rates (MGD)
001	Arrowhead West Tunnel	34°11'	117°16'	Tributary to East Twin Creek	1.0 ¹

¹ This flow rate will increase to 4 MGD during tunneling operations at the western end of Arrowhead East Tunnel. Wastewater from tunneling operations at the western end of Arrowhead East Tunnel will be discharged through Discharge Serial No. 001 (the Arrowhead West Tunnel, discharge point to a tributary of East Twin Creek). This condition is estimated to last for about one and one-half years, after which the estimated discharge at Discharge Serial No. 001 will again be 1 MGD.

Discharge Serial No.	Discharge Location	Latitude	Longitude	Affected Receiving Water	Flow Rates (MGD)
002	Arrowhead East Tunnel	34°08'	117°11'	City Creek	3.0 ²
003	Riverside-Badlands Tunnel (Live Oak Facility)	34°00'	117°07'	Yucaipa Creek	2.59
004	Riverside Badlands Tunnel (San Timoteo Facility)	33°59'	117°07'	San Timoteo Creek	2.5
005	Riverside-Badlands Tunnel (Gilman Springs Portal Facility)	33°56'	117°07'	Tributary to San Jacinto River	2.82
006	Riverside-Badlands Tunnel (Opal Avenue Portal Facility)	34°02'	117°08'	Zanja Creek Tributary to Santa Ana River	0.864

2. Add the following to D. Provisions:

16. The discharger shall implement the TDS offset program³ approved by the Executive Officer on December 21, 2000. As specified in this program, the discharger shall extract high TDS groundwater from the Bunker Hill II Groundwater Subbasin, and to export this water from the Bunker Hill Basin via the Santa Ana Regional Interceptor (SARI line). The agreed upon offset ratio is 1:1.1. MWD shall supply or purchase an equivalent amount of high quality product water for replacement (basin recharge) to maintain water quality and protect beneficial uses.

3. Add the following new Section D. to the Monitoring and Reporting Program No. 99-21.

Section D. TDS Offset Monitoring and Reporting

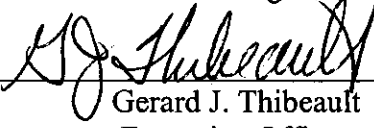
1. The discharger shall monitor the total monthly extracted volume of water intended to offset excess TDS discharges.
2. A representative grab sample of the extracted water shall be taken and tested for conductivity monthly. A conductivity to TDS conversion factor shall be established monthly.
3. Monthly reports shall be submitted and shall include the following
 - a. Volume of extracted water for offset,
 - b. Conductivity and conductivity/TDS conversion factor,
 - c. Total mass of TDS exported for the month in relation to the TDS mass being offset, and

² While tunneling operations at the western end of the Arrowhead East Tunnel are underway, wastewater discharges from these operations will be diverted to Discharge Serial No. 001. Discharges to Discharge Serial No. 002 (City Creek) will commence again after the tunneling operations for the Arrowhead East Tunnels are completed. (see also footnote No. 1)

³ MWD proposal titled "Revised Total Dissolved Solids Offset Proposal and Implementation Schedule" dated November 6, 2000.

- d. If no offset occurs during the monitoring period, a letter to that effect shall be submitted in lieu of a monitoring report.
- 4. All other conditions and requirements of Order No. 99-21 as amended by Order No. 01-14, shall remain unchanged.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on September 26, 2001.



Gerard J. Thibeault
Executive Officer

California Regional Water Quality Control Board
Santa Ana Region

September 26, 2001

ITEM: 5

SUBJECT: Amendment to Order No. 99-21, as Amended by Order No. 01-14, NPDES No. CA8000394, Waste Discharge Requirements, Metropolitan Water District of Southern California, Inland Feeder Project, Riverside and San Bernardino County, Order No. 01-88

DISCUSSION:

On April 9, 1999 the Regional Board adopted Order No. 99-21, NPDES No. CA8000394, for the discharge of wastes associated with the construction of the Inland Feeder Project by the Metropolitan Water District of Southern California. The Inland Feeder Project will extend from the State Water Project facilities in the San Bernardino Mountains to the Colorado River Aqueduct in San Jacinto. Sections of the pipeline will pass through or near the San Bernardino National Forest and the communities of Highland, Yucaipa, San Bernardino, Redlands, Riverside, Perris, Moreno Valley, and San Jacinto Valley. The 43.5 mile system will consist of approximately 18 miles of 14-foot diameter tunnels and 25.5 miles of 12 foot diameter pipelines. Order No. 99-21 specifies requirements for the discharge of wastewater from five separate discharge outfalls associated with the construction of the Inland Feeder Project (Arrowhead Tunnel West (East Twin Creek), Arrowhead Tunnel East (City Creek), Riverside-Badlands Tunnel (Live Oak Canyon), Riverside-Badlands Tunnel (San Timoteo Canyon), Riverside-Badlands Tunnel (Gilman Springs Road and Highway 60)).

On January 19, 2001, Order No. 99-21 was amended to increase the amount of discharge flows at Discharge Serial No. 004 and 005, Riverside Badlands Tunnel, from 0.6 million gallons per day (MGD) to 1.6 MGD and 2.82 MGD, respectively.

The discharger recently submitted a request to increase the wastewater flows associated with the dewatering project at Discharge Serial No.003 and 004, Riverside Badlands Tunnel Sites, Live Oak and San Timoteo, from 0.35 million gallons per day (MGD) and 1.6 MGD to 2.59 MGD and 2.5 MGD, respectively. The increase in flow is necessary as a result of water encountered at this part of the tunneling operation. The discharger also requested the inclusion of a new Discharge Serial No. 006, Riverside-Badlands Tunnel (Opal Avenue Portal Facility) and proposes to discharge 0.864 MGD from this new location. Discharges from Discharge Serial No. 006 would be to the Santa Ana River in an area overlying the Bunker Hill II Groundwater Subbasin.

In addition, the discharger has advised that to complete the tunnel boring operation at the Arrowhead East Tunnel, tunnel boring will be done at the western end towards the already completed portion of the tunnel. Discharges from this tunneling operation will be diverted to Discharge Serial No. 001. The tunneling operations at Arrowhead East Tunnel are anticipated to

occur for one and a half years. The combined wastewater flows from the Arrowhead East and West Tunnels that will be discharged through Discharge Serial No. 001 are approximately 4.0 MGD. While tunneling operations at the Arrowhead East Tunnel are being completed, discharges to Discharge Serial No. 002 will be nominal. Upon completion of tunnel boring operations at both the Arrowhead West and East Tunnels, wastewater discharges (1 MGD) from the Arrowhead West Tunnel will be discharged to Discharge Serial No. 001 and wastewater discharges (3 MGD) from the Arrowhead East Tunnel will be discharged to Discharge Serial No. 002.

Order No. 01-88 would amend Finding 3 of Order No. 99-21, as amended by Order No. 01-14, to recognize the increase in flow at Discharge Serial No. 003 and 004, to incorporate the new Discharge Serial No. 006, and to reflect the discharge flow variations at Discharge Serial No. 001 that are contingent on the status of the tunneling operation. Order No. 01-88 would also include requirements implementing the agreed upon offset program for TDS discharges in excess of water quality objectives for the Bunker Hill II Groundwater Subbasin.

RECOMMENDATION:

Adopt Order No. 01-88 as presented.

Comments were solicited from the following agencies:

U.S. Environmental Protection Agency, Permits Issuance Section (WTR-5) – Terry Oda
U.S. Army Corps of Engineers, Los Angeles District, - Regulatory Branch
U.S. Fish and Wildlife Service - Carlsbad
State Water Resources Control Board, Office of the Chief Counsel - Ted Cobb
State Water Resources Control Board, Division of Water Quality - James Kassel
State Department of Water Resources - Glendale
State Department of Fish and Game - Long Beach
State Department of Health Services - San Bernardino
San Bernardino County Environmental Health Services – Pam Bennett
San Bernardino County Department of Public Works, Env. Mgmt Div. – Jim Borcuk
Riverside County Environmental Health Services – Sam Martinez
Riverside County Flood Control and Water Conservation District - Mark Wills
Law Office of Thomas E. Luebben - James K. Hansen
Orange County Coastkeeper – Garry Brown
Lawyers for Clean Water C/c San Francisco Baykeeper